13 Technical information

13 Technical information

The following section contains details of data formats, etc, which may be of use when operating the DMR8.

13.1 Specifications

13.1.1 Recorder specifications

Recorder type	Stationary Head / Dual capstan type
Track configuration	8 PCM audio tracks 1 timecode track 1 control track 2 AUX (analog) tracks
Sampling frequency	48kHz / 44.1kHz / 32kHz (all ±10%)
Frequency response	0 +1,-3dB 20Hz - 20kHz (fs=48kHz,44.1kHz)
	0 +1,-3dB 20Hz - 14kHz (fs=32kHz)
Dynamic range	120dB (recorder section)
Quantization	20 bit linear (120dB dynamic range)
AUX tracks	
Frequency response	0 +1, -3dB 100Hz - 2kHz
Maximum I/O level	-1dB
Hum & Noise	-45dB
Wow & flutter	Undetectable
Variable pitch	± 10 %
REC & PLAY time	20 minutes (M20P @ Fs=48kHz)
	22 minutes (M20P @ Fs=44.1kHz)
	30 minutes (M20P @ Fs=32kHz)
Tape speed	127mm/sec (Fs @ 48kHz) 116.7mm/sec (Fs @ 44.1kHz) 84.7mm/sec (Fs @ 32kHz)
Error coding	Double RSC
Channel coding	8 - 10 modulation
Head Configuration **(thin film type)**	2 x PLAYBACK heads 1 x RECORD head 1 x ERASE head
Tape	YAMAHA M20P (8mm wide metal particle type)
REW & FF time	100 sec (M20P)

13.1.2 Mixer specifications

Frequency response	0 +1,-3dB 20Hz - 20kHz (fs=48kHz,44.1kHz)
	0 +1,-3dB 20Hz - 14kHz (fs=32kHz)
DSP quantization	32 bit EQ 28 bit Mix Effect 24 bit Digital I/O (YAMAHA format)
Monitor analog output	
Monitor D/A	20 bit - 8 times oversampling
Distortion (THD)	less than 0.007% (monitor D/A @ +17dB, 1kHz)
Hum & Noise *	-87dB

13.1.3 General specifications

External memory	IC MEMORY CARD MCD64 (64kbyte)
Power supply	AC 120V / 220 / 240V
Power consumption	120W
Dimensions	670.5(W) x 677.3(D) x 253.6(H)mm (26.4 (W) x 26.6(D)x 10(H) - inches)
Weight	Approx 31kg (68lbs)

All specifications without notes are measured at 48kHz sampling frequency. 0dB is referenced to 0.775V rms.
* Hum & noise are measured with an average response volt meter with -6dB/oct filter at 12.7kHz.

13.1.4 LCD Displays

MAIN DISPLAY	4 x 40 backlit
SUBDISPLAY	2 x 24 backlit

13.1.5 Control I/O specifications

I/O	LEVEL	CONNECTOR TYPE
CONTROL IN	RS422	15-pin D-sub female
CONTROL OUT	RS422	15-pin D-sub female
REMOTE IN/OUT	RS422	9-pin D-sub female
MIDI IN/OUT		5-pin DIN
FOOT SWITCH PUNCH IN/OUT		1/4" phone (TRS)
FOOT SWITCH TALKBACK		1/4" phone (TRS)
FOOT VOLUME VARI PITCH		1/4" phone (TRS)
FOOT SWITCH DATA ENTRY		1/4" phone (TRS)

13.1.6 Timecode I/O specifications

I/O	CONNECTOR TYPE
TIMECODE IN	XLR-3-31 type
TIMECODE OUT	XLR-3-32 type
MIDI TIMECODE IN	5-pin DIN
MIDI TIMECODE OUT	5-pin DIN
V SYNC IN	BNC

13.1.7 Superimpose I/O Specifications

I/O	CONNECTOR TYPE
VIDEO SUPERIMPOSE IN	BNC
VIDEO SUPERIMPOSE OUT	BNC

13.1.8 Digital I/O specifications

INPUT	FORMAT	LEVEL	CONNECTOR TYPE
DIGITAL I/O AD/DA (CH 1...8, WORDCLOCK, EMPHASIS)	YAMAHA	RS422 (except EMPHASIS;TTL LEVEL)	25-pin D-sub female
DIGITAL I/O SLAVE (CH 1...8, WORDCLOCK, EMPHASIS)	YAMAHA	RS422 (except EMPHASIS;TTL LEVEL)	25-pin D-sub female
DIGITAL I/O PATCHBAY	YAMAHA	RS422 (except EMPHASIS;TTL LEVEL)	25-pin D-sub female

13.1.9 Digital input specifications

INPUT	FORMAT	LEVEL	CONNECTOR TYPE
DIGITAL CASCADE IN	YAMAHA	RS422	8-pin DIN
WORDCLOCK IN	-	TTL	BNC
IN INSERT IN	YAMAHA	RS422	8-pin DIN
OUT INSERT IN	YAMAHA	RS422	8-pin DIN
MONITOR INSERT IN	YAMAHA	RS422	8-pin DIN
EFFECTS RETURN 1,2,3	YAMAHA	RS422	8-pin DIN
SLAVE MIX IN	YAMAHA	RS422	8-pin DIN
SUB IN	YAMAHA	RS422	8-pin DIN
DIGITAL STEREO IN	AES/EBU	RS422	XLR-3-31 type
DAT 1 IN	S-PDIF	0.5Vpp	Phono (RCA)
DAT 2 IN	S-PDIF	0.5Vpp	Phono (RCA)

13.1.10 Digital output specifications

INPUT	FORMAT	LEVEL	CONNECTOR TYPE
WORDCLOCK OUT	-	TTL	BNC connector
DIGITAL CASCADE OUT	YAMAHA	RS422	8-pin DIN
CUE MONITOR OUT	S-PDIF	0.5Vpp	Phono (RCA)
	AES/EBU	RS422	XLR-3-32 type
C-R MONITOR OUT	S-PDIF	0.5Vpp	Phono (RCA)
	AES/EBU	RS422	XLR-3-32 type
OUT INSERT OUT	YAMAHA	RS422	8-pin DIN
IN INSERT OUT	YAMAHA	RS422	8-pin DIN
MONITOR INSERT OUT	YAMAHA	RS422	8-pin DIN
EFFECTS SEND 1,2,3	YAMAHA	RS422	8-pin DIN
DIGITAL STEREO OUT	AES/EBU	RS422	XLR-3-32 type
DAT 1 OUT	S-PDIF	0.5Vpp	Phono (RCA)
DAT 2 OUT	S-PDIF	0.5Vpp	Phono (RCA)
CLK OUT		RS422	8-pin DIN

13.1.11 Analog input specifications

INPUT	ACTUAL LOAD IMPEDANCE	TYPICAL SOURCE IMPEDANCE	INPUT LEVEL (@1kHz)		CONNECTOR TYPE
			NOMINAL	MAX BEFORE CLIP	
AUX IN	10kΩ	600Ω	-10dB (245mV)	-1dB (691mV)	Phono (RCA)
2CH ANA-LOG IN	40kΩ	600Ω	+4dB (1.23V)	+18dB (6.16V)	XLR-3-31
COMM IN	40kΩ	50Ω - 600Ω mics	-50dB (2.45mV), -20dB (77.5mV)	-36dB (12.3mV), -6dB (388mV)	XLR-3-31

0dB is referenced to 0.775Vrms.

13.1.12 Analog output specifications

OUTPUT	ACTUAL SOURCE IMPEDANCE	FOR USE WITH NOMINAL	INPUT LEVEL (@1kHz)		CONNECTOR TYPE
			NOMINAL	MAX BEFORE CLIP	
C-R MONITOR OUT (L,R)	150Ω	600Ω	+4dB (1.23V)	+18dB (6.16V)	XLR-3-32 type
CUE MONITOR OUT (L,R)	150Ω	600Ω	+4dB (1.23V)	+18dB (6.16V)	XLR-3-32 type
CUE PHONES (L,R)	150Ω	8ΩPHONES	1.1mW	12mW	1/4" phone (stereo)
		40ΩPHONES	4mW	40mW	
C-R PHONES (L,R)	150Ω	8ΩPHONES	1.1mW	12mW	1/4" phone (stereo)
		40ΩPHONES	4mW	40mW	
AUX OUT (1,2)	600Ω	50kΩ	-10dB (245mV)	-1dB (691mV)	Phono (RCA)

0dB is referenced to 0.775Vrms.

13.1.13 Tape Transport Performance

MECHANICAL MODE	TIME (Sec)
TAPE LOADING	5.5
TAPE UNLOADING (EJECT)	2.0
STOP⇒PAUSE	0.5
STOP⇒PLAY/REC	1.25
PLAY⇒STOP	1.3
PAUSE⇒STOP	0.5
PAUSE⇒PLAY/REC	1.0
FF/REW⇒STOP	5.0 (READING TIMECODE)
FF/REW⇒TIME	< 100

13.1.14 Supplied accessories

1	DMR8 Digital Mixer/Recorder
1	This manual
1	"Getting Started" manual
10	M20P cassettes
1	M20CL head cleaning cassette
1	MCD64 RAM card (64kbyte)
1	soft cover
1	25-way "straight" cable (for audio connection to AD8X)-"JAE" connector
1	25-way "crossed" cable (for audio connections to another DMR8 or DRU8)-"DDK" connector
1	15-way control cable (for control connections to another DMR8 or DRU8)
1	8-pin DIN Yamaha cascade/sub-mixer cable

13.2 Connector pinouts

13.2.1 AD/SLAVE IN/OUT 25-pin D-sub pinout

SIGNAL NAME		PIN ASSIGNMENT		
		HOT	COLD	
Data Input	channel 1,2	1	14	
	channel 3,4	2	15	
	channel 5,6	3	16	
	channel 7,8	4	17	
Data Output	channel 1,2	5	18	
	channel 3,4	6	19	
	channel 5,6	7	20	
	channel 7,8	8	21	
Word clock	IN	9	22	
	OUT	10	23	
Emphasis	IN	11		
	OUT	12		
GND		13	24	25

13.2.2 DIGITAL CASCADE 8-pin DIN pinout

SIGNAL NAME	PIN ASSIGNMENT	
	HOT	COLD
Data	3	5
Word clock	1	4
GND	2,6,7,8	

13.2.3 CONTROL IN/OUT 15-pin D-sub pinout

SIGNAL NAME	PIN ASSIGNMENT			
	IN		OUT	
	HOT	COLD	HOT	COLD
TX	2	10	1	9
RX	1	9	2	10
AINI	3	11	4	12
AOUT	4	12	3	11
/ARSTI	5	13	6	14
/ARSTO	6	14	5	13
GND	8	15	8	15

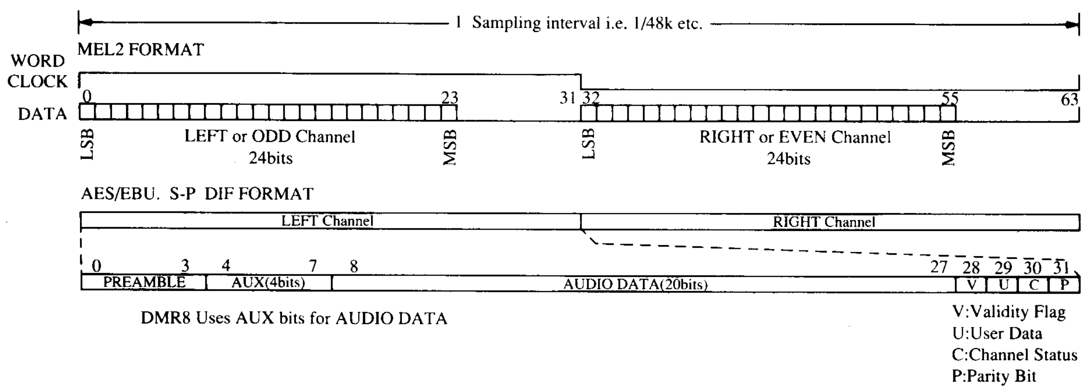
Pin 7 no connection.

13.2.4 REMOTE 9-pin D-sub pinout

SIGNAL NAME	PIN ASSIGNMENT	
	HOT	COLD
TX	7	2
RX	3	8
COMMON	4	6
FRAME GND	1	9

Pin 5 no connection.

13.3 Digital audio formats



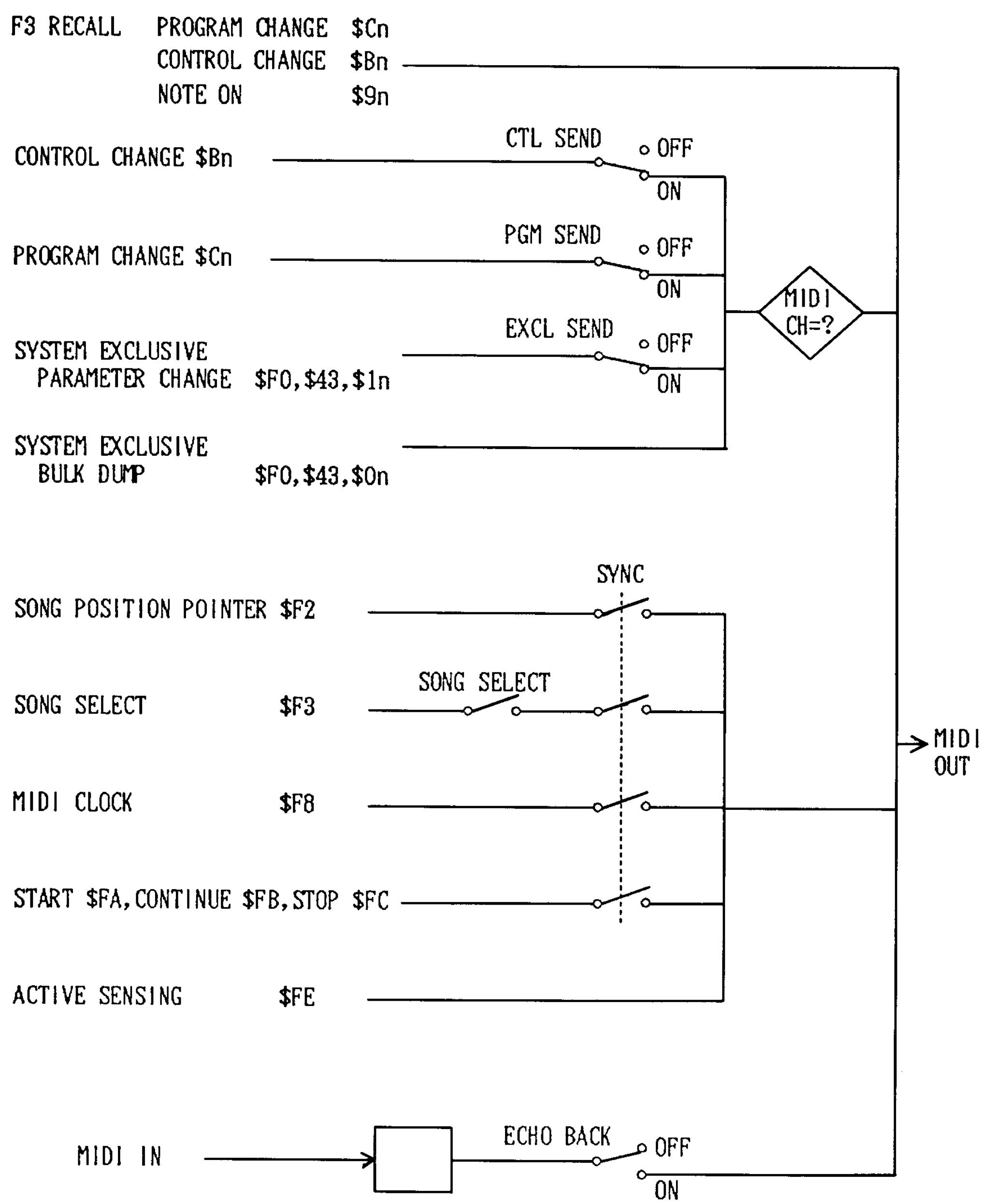
NOTES

YAMAHA format digital audio inputs can be phase-compensated. If, for example, an AD8X is a word clock slave of the DMR8, there will be a relative delay of about 50ns caused by RS-422 circuitry and cable propagation delay (a cable will delay signals by about 6ns/m). There will therefore be double the phase delay on data received from the AD8X. If the DMR8 is not fitted with phase compenation, there will be problems, especially with longer cable runs. Accordingly, phase compensation is fitted on the following inputs: A/D (8-way), SLAVE (8-way), SLAVE MIX (st), CASCADE IN (st), SUB IN (st).

The DMR8 can read and write the first 32 bits of the channel status in AES/EBU and S/P-DIF formats. A CRC check is then performed if the data is "professional". The DMR8 cannot read or write user data.

13.4 MIDI

13.4.1 Transmission conditions



13.4.2 Channel information

Channel Voice Messages

The following messages are all Channel Voice messages.

Note On

When a F3 MIDI EVENT is RECALLed, a Note On message is transmitted (Note Off is transmitted using Note On Velocity = 0).

STATUS	1001nnnn(9nH)	n=0 (channel no.1) n=15 (channel no.16)
NOTE No.	0kkkkkkk	k=0 (C-2)-127(G8)
VELOCITY	0vvvvvvv	V=0-127

Control Change

When CONTROL CHANGE (CTL) SEND is ON (•), a Control Change message is transmitted on the selected MIDI channel whenever an assigned parameter is changed.

The DMR8 only uses one MIDI channel, it does not use one for each bank. The Control Change message sent will depend on the Control Parameter assignment, according to the Control Number and Parameter Number Assignment table.

If several controllers are assigned to the same parameter, the highest Controller number will take precedence. A Control Change message may also be transmitted when an F3 MIDI EVENT is recalled.

STATUS	1011nnnn (BnH)	n=0 (channel no.1) n=15 (channel no.16)
CONTROL No.	0ccccccc	c=0-95,102-120
VALUE	0vvvvvvv	V=0-127

Program Change

When PROGRAM CHANGE (PGM) is ON (•), a Program Change message is transmitted on the selected MIDI channel whenever an assigned memory is recalled (the DMR8 only uses one MIDI channel, it does not use one for each bank).

The program number is decided from the program assignment of the selected bank. If several program numbers are assigned to the same memory , the highest program number will take precedence.

A Program Change message is transmitted when a F3 MIDI EVENT is recalled.

STATUS	1100nnnn (CnH)	n=0 (channel no.1) n=15 (channel no.16)
PROGRAM No.	0ppppppp	p=0-127

13.4.3 System Common Message

The following messages all fall into the group of System Common Messages.

Song Position Pointer

When MIDI SYNC is ON, Song Position Pointer messages are transmitted.

STATUS	11110010 (F2H)
LSB	0LLLLLLL
MSB	0hhhhhhh

Song Select

When MIDI SYNC is ON and SONG SEL is ON, Song Select Messages are transmitted

STATUS	11110011 (F3H)	
LSB	0sssssss	s=0-99

13.4.4 System Real Time Message

The following MIDI messages are all System Real Time messages.

Clock

When MIDI SYNC is ON, Clock information is transmitted.

STATUS	11110011 (F3H)

Start

When MIDI SYNC is ON, Start messages are transmitted.

STATUS	11111010 (FAH)

Continue

When MIDI SYNC is ON, Continue messages are transmitted.

STATUS	11111011 (FBH)

Stop

When MIDI SYNC is ON, Stop messages are transmitted.

STATUS	11111100 (FCH)

Active Sensing

The DMR8 transmits Active Sensing messages at fixed intervals.

STATUS	11111110 (FEH)

13.4.5 System Exclusive Messages

The following messages refer to System Exclusive data.

Parameter Change

When EXCLUSIVE (EXCL) SEND is ON (•) and a parameter is not being transmitted using Control Change or the Program Change (SEND is OFF (-) or the parameter is not assigned), this System Exclusive data is transmittted on the selected MIDI channel.

The Control Change parameters are listed later in this section.

STATUS	11110000 (F0H)	
ID No.	01000011 (43H)	
SUB-STATUS	0001nnnn (1nH)	n=0 (channel no.1) n=15 (channel no.16)
PARAM GROUP	00111100 (3CH)	
PARM No.	0ppppppp	
DATA	0ddddddd	
	.	
	.	
	0ddddddd	
EOX	11110111 (F7H)	

13.4.6 Transmission BULK DUMP formats

The following header and trailer information is transmitted when Bulk Dump data is sent from the DMR8.

Any checksum (0eeeeeee) is calculated by taking the least significant seven bits of the 2's complement sum of the data bytes.

Contact your YAMAHA supplier if you need details of the exact Bulk Data formats used by the DMR8.

Memory

This Bulk Dump format transmits the contents of "F" memories.

Status	11110000 (F0H)	
ID No.	01000011 (43H)	Yamaha ID
SUB-STATUS	0000nnnn (0nH)	nnnn = channel number (0=ch1, etc)
FORMAT No.	01111110 (7EH)	
BYTE COUNT MSB	0bbbbbbb	MSB (next page byte count)
BYTE COUNT LSB	0bbbbbbb	LSB (next page byte count)
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	<space>
	00100000 (20H)	<space>
	00111000 (38H)	"8"
	00110110 (36H)	"6"
	00110111 (37H)	"7"
	00111001 (39H)	"9"
DATA NAME	0000xfff	x=0=RECMIX, x=1=MIX-DOWN, f=function (1 to 4)
MEMORY No.	0mmmmmmm	m=memory (1-32). If f=1, m=127=current memory, if f=3, m=126=grouping, m=127=stereo grouping
DATA	0ddddddd • • • 0ddddddd	Next page data length
CHECKSUM	0eeeeeee	
EOX	11110111 (F7H)	

MEMORY BULK BYTE COUNT & DATA LENGTH

MEMORY NUMBER	COUNT MSB	COUNT LSB	LENGTH
REC MIX F1 ALL	00000101 (05H)	00000100 (04H)	634 bytes
MIXDOWN F1 ALL	00000111 (07H)	00001110 (0EH)	900 bytes
REC MIX F2 1-4,25 EQ	00000001 (01H)	00011010 (1AH)	144 bytes
MIXDOWN F2 1-4,25 EQ	00000010 (02H)	00101111 (2FH)	293 bytes
REC MIX F2 5-8,26,27 ON/OFF	00000000 (00H)	00111000 (38H)	46 bytes
MIXDOWN F2 5-8,26,27 ON/OFF	00000000 (00H)	00110100 (34H)	42 bytes
REC MIX F2 9-12,28,29,30 FAD	00000001 (01H)	01001010 (4AH)	192 bytes
MIXDOWN F2 9-12,28,29,30 FAD	00000010 (02H)	00000010 (02H)	248 bytes
REC MIX F2 13-16,31,32,PAN	00000000 (00H)	01001000 (48H)	62 bytes
MIXDOWN F2 13-16,31,32 PAN	00000000 (00H)	01001010 (4AH)	64 bytes
F2 17-20 CH EFFECT	00000001 (01H)	00111010 (3AH)	176 bytes
F2 21-24 EFFECT	00000001 (01H)	00001110 (0EH)	132 bytes
REC MIX F3 1,2 CH NAME	00000010 (02H)	00011010 (1AH)	272 bytes
REC MIX F3 3,4 TR NAME	00000010 (02H)	00011010 (1AH)	272 bytes
MIXDOWN F3 1-4 CH NAME	00000001 (01H)	01010010 (52H)	200 bytes
REC MIX F3 5,6 GROUPING	00000000 (00H)	01010110 (56H)	76 bytes
MIXDOWN F3 5,6 GROUPING	00000000 (00H)	01101010 (6AH)	96 bytes
REC MIX F3 7,8 ST GROUPING	00000000 (00H)	00101110 (2EH)	36 bytes
MIXDOWN F3 7,8 ST GROUPING	00000000 (00H)	00111010 (3AH)	48 bytes
REC MIX F3 9,10 CROSS FADE	00000000 (00H)	00101100 (2CH)	34 bytes
MIXDOWN F3 9,10 INPUT GROUP	00000000 (00H)	00101011 (2BH)	33 bytes
REC MIX F3 11,12 FADING CH	00000000 (00H)	00110000 (30H)	38 bytes
MIXDOWN F3 11,12 FADING CH	00000000 (00H)	00110100 (34H)	42 bytes
REC MIX F3 13,14 FAD C-R/CUE	00000000 (00H)	00101110 (2EH)	36 bytes
MIXDOWN F3 13,14 FAD ST/MONI	00000000 (00H)	00101110 (2EH)	36 bytes
F3 15,16 EIGHT FADER	00000000 (00H)	00111010 (3AH)	48 bytes
F3 17 EIGHT PANPOT	00000000 (00H)	00110010 (32H)	40 bytes
F3 18 EIGHT EQ	00000000 (00H)	01110100 (74H)	106 bytes
F3 19,20 CHANNEL EQ	00000000 (00H)	00110100 (34H)	42 bytes
F3 21,22 EIGHT NAME	00000000 (00H)	01011010 (5AH)	80 bytes
F3 23,24 CHASE	00000000 (00H)	00110111 (37H)	45 bytes
F3 25-28 MIDI EVENT	00000000 (00H)	00110101 (35H)	43 bytes
F3 28-32 REMOTE EVENT	00000000 (00H)	00101011 (2BH)	33 bytes
F4 EVENT	00000000 (00H)	00010010 (12H)	8 bytes

Program Change Assignment Table

This format transmits the Program Change Assignment table.

Status	11110000 (F0H)	
ID No.	01000011 (43H)	Yamaha ID
SUB-STATUS	0000nnnn (0nH)	nnnn = channel number (0=ch1, etc)
FORMAT No.	01111110 (7EH)	
BYTE COUNT MSB	00000010 (02H)	MSB
BYTE COUNT LSB	00001010 (0AH)	LSB
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	<space>
	00100000 (20H)	<space>
	00111000 (38H)	"8"
	00110110 (36H)	"6"
	00110111 (37H)	"7"
	00111001 (39H)	"9"
	01010100 (54H)	"T"
BANK No.	0zzzzzzz	z=bank (1=A, 2=B, etc)
DATA	0ddddddd • • • 0ddddddd	256 bytes
CHECKSUM	0eeeeeee	
EOX	11110111 (F7H)	

Control Assignment Table

This format transmits the Control Assignment table.

Status	11110000 (F0H)	
ID No.	01000011 (43H)	Yamaha ID
SUB-STATUS	0000nnnn (0nH)	nnnn = channel number (0=ch1, etc)
FORMAT No.	01111110 (7EH)	
BYTE COUNT MSB	00000010 (02H)	MSB
BYTE COUNT LSB	00001010 (0AH)	LSB
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	<space>
	00100000 (20H)	<space>
	00111000 (38H)	"8"
	00110110 (36H)	"6"
	00110111 (37H)	"7"
	00111001 (39H)	"9"
	01000011 (43H)	"C"
	00100000 (20H)	<space>
DATA	0ddddddd • • • 0ddddddd	256 bytes
CHECKSUM	0eeeeeee	
EOX	11110111 (F7H)	

Effect Parameter

The parameters of any one of the three internal effects can be transmitted using this format.

Status	11110000 (F0H)	
ID No.	01000011 (43H)	Yamaha ID
SUB-STATUS	0000nnnn (0nH)	nnnn = channel number (0=ch1, etc)
FORMAT No.	01111110 (7EH)	
BYTE COUNT MSB	00000000 (00H)	MSB
BYTE COUNT LSB	00101011 (2BH)	LSB
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	<space>
	00100000 (20H)	<space>
	00111000 (38H)	"8"
	00110110 (36H)	"6"
	00110111 (37H)	"7"
	00111001 (39H)	"9"
	01000101 (45H)	"E"
MEMORY No.	0mmmmmmm	m=effect no (0=0 to 1EH=30)
DATA	0ddddddd • • • 0ddddddd	33 bytes
CHECKSUM	0eeeeeee	
EOX	11110111 (F7H)	

Channel effect parameter

The parameters of any one of the channel effects can be transmitted using this format.

Status	11110000 (F0H)	
ID No.	01000011 (43H)	Yamaha ID
SUB-STATUS	0000nnnn (0nH)	nnnn = channel number (0=ch1, etc)
FORMAT No.	01111110 (7EH)	
BYTE COUNT MSB	00000000 (00H)	MSB
BYTE COUNT LSB	00011100 (1CH)	LSB
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	<space>
	00100000 (20H)	<space>
	00111000 (38H)	"8"
	00110110 (36H)	"6"
	00110111 (37H)	"7"
	00111001 (39H)	"9"
	01000110 (46H)	"F"
MEMORY No.	0mmmmmmm	m=channel effect no (0=0 to 0AH=10)
DATA	0ddddddd • • • 0ddddddd	18 bytes
CHECKSUM	0eeeeeee	
EOX	11110111 (F7H)	

INITIAL SET style

The parameters of any of the INITIAL SET styles (user or preset) can be transmitted using this format.

Status	11110000 (F0H)	
ID No.	01000011 (43H)	Yamaha ID
SUB-STATUS	0000nnnn (0nH)	nnnn = channel number (0=ch1, etc)
FORMAT No.	01111110 (7EH)	
BYTE COUNT MSB	00000111 (07H)	MSB
BYTE COUNT LSB	01011110 (5EH)	LSB
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	<space>
	00100000 (20H)	<space>
	00111000 (38H)	"8"
	00110110 (36H)	"6"
	00110111 (37H)	"7"
	00111001 (39H)	"9"
	01010010 (52H)	"R"
MEMORY No.	0ummmmmm	u=0=user, u=1=preset, m=memory (0 to 9). If u=0, m=63=current
DATA	0ddddddd • • • 0ddddddd	980 bytes
CHECKSUM	0eeeeeee	
EOX	11110111 (F7H)	

TOC notes

The TOC notes can be transmitted using this format.

Status	11110000 (F0H)	
ID No.	01000011 (43H)	Yamaha ID
SUB-STATUS	0000nnnn (0nH)	nnnn = channel number (0=ch1, etc)
FORMAT No.	01111110 (7EH)	
BYTE COUNT MSB	00000111 (07H)	MSB
BYTE COUNT LSB	01101000 (68H)	LSB
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	<space>
	00100000 (20H)	<space>
	00111000 (38H)	"8"
	00110110 (36H)	"6"
	00110111 (37H)	"7"
	00111001 (39H)	"9"
	01001001 (49H)	"I"
MEMORY No.	0mmmmmmm	m=note (1 to 5), m=127=current
DATA	0ddddddd • • • 0ddddddd	990 bytes
CHECKSUM	0eeeeeee	
EOX	11110111 (F7H)	

Automix

The automix memories (current or D1 through D8) data can be transmitted using this format.

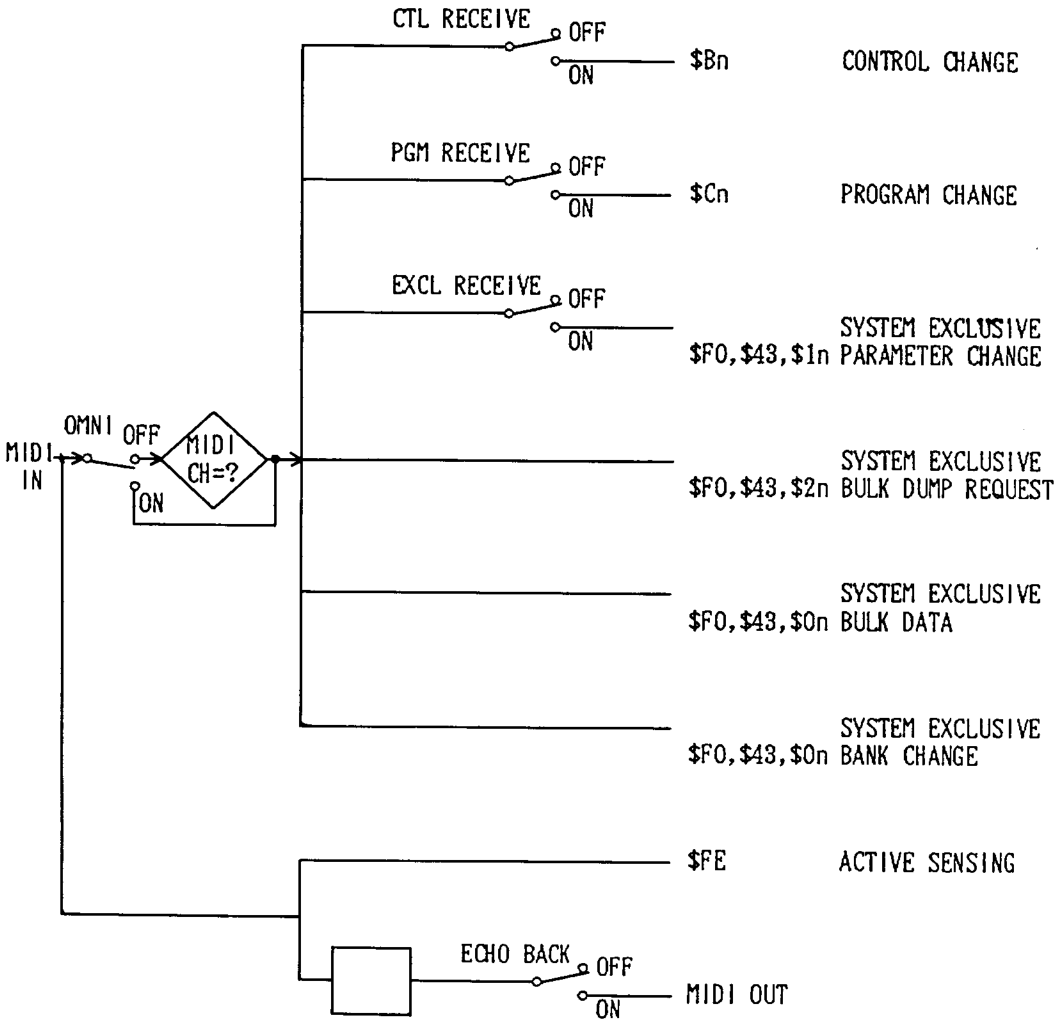
Status	11110000 (F0H)	
ID No.	01000011 (43H)	Yamaha ID
SUB-STATUS	0000nnnn (0nH)	nnnn = channel number (0=ch1, etc)
FORMAT No.	01111110 (7EH)	
BYTE COUNT MSB	0bbbbbbb	MSB
BYTE COUNT LSB	0bbbbbbb	LSB
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	<space>
	00100000 (20H)	<space>
	00111000 (38H)	"8"
	00110110 (36H)	"6"
	00110111 (37H)	"7"
	00111001 (39H)	"9"
	01011000 (58H)	"X"
MEMORY No.	0cmmmmmm	c=0=data, c=1=current, if c=0 m=memory(1 through 8), if c=1, m=1=current
DATA	0ddddddd • • • 0ddddddd	(variable)
CHECKSUM	0eeeeeee	
EOX	11110111 (F7H)	

System setup

The current system setup data can be transmitted using this format.

Status	11110000 (F0H)	
ID No.	01000011 (43H)	Yamaha ID
SUB-STATUS	0000nnnn (0nH)	nnnn = channel number (0=ch1, etc)
FORMAT No.	01111110 (7EH)	
BYTE COUNT MSB	00000011 (03H)	MSB
BYTE COUNT LSB	00001010 (0AH)	LSB
	01001100 (4CH)	"L"
	01001101 (4DH)	"M"
	00100000 (20H)	<space>
	00100000 (20H)	<space>
	00111000 (38H)	"8"
	00110110 (36H)	"6"
	00110111 (37H)	"7"
	00111001 (39H)	"9"
	01010011 (53H)	"S"
	00100000 (20H)	<space>
DATA	0ddddddd • • • 0ddddddd	382 bytes
CHECKSUM	0eeeeeee	
EOX	11110111 (F7H)	

13.4.7 Receive conditions



13.4.8 Program Change assignment

The default (initialized) settings for the four Program Change banks (A through D) is as follows.

Program Change 1 is assigned to memory F1-1, through to Program Change 32, assigned to F1-32. Program Change 33 is assigned to F2-1, and so on, through to Program Change 128, corresponding to F4-32.

13.4.9 Control Change assignment.

The following table shows the default (initialized) assignments of MIDI Controllers to DMR8 parameters.

CTL 0	PRM 0	CTL 64	PRM 88	CTL 102	PRM 105
CTL 1	PRM 141	CTL 65	PRM 1	CTL 103	PRM 106
CTL 2	PRM 142	CTL 66	PRM 2	CTL 104	PRM 107
CTL 3	PRM 143	CTL 67	PRM 3	CTL 105	PRM 108
CTL 4	PRM 144	CTL 68	PRM 4	CTL 106	PRM 109
CTL 5	PRM 145	CTL 69	PRM 5	CTL 107	PRM 110
CTL 6	PRM 146	CTL 70	PRM 6	CTL 108	PRM 111
CTL 7	PRM 147	CTL 71	PRM 7	CTL 109	PRM 112
CTL 8	PRM 148	CTL 72	PRM 8	CTL 110	PRM 213
CTL 9	PRM 149	CTL 73	PRM 9	CTL 111	PRM 214
CTL 10	PPM 150	CTL 74	PRM 10	CTL 112	PRM 215
CTL 11	PRM 151	CTL 75	PRM 11	CTL 113	PRM 216
CTL 12	PRM 152	CTL 76	PRM 12	CTL 114	PRM 217
CTL 13	PRM 153	CTL 77	PRM 13	CTL 115	PRM 218
CTL 14	PRM 154	CTL 78	PRM 14	CTL 116	PRM 219
CTL 15	PRM 155	CTL 79	PRM 15	CTL 117	PRM 220
CTL 16	PRM 156	CTL 80	PRM 16	CTL 118	PRM 83
CTL 17	PRM 157	CTL 81	PRM 17	CTL 119	PRM 84
CTL 18	PRM 158	CTL 82	PRM 18	CTL 120	PRM 85
CTL 19	PRM 159	CTL 83	PRM 19		
CTL 20	PRM 160	CTL 84	PRM 20		
CTL 21	PRM 161	CTL 85	PRM 21		
CTL 22	PRM 162	CTL 86	PRM 22		
CTL 23	PRM 163	CTL 87	PRM 23		
CTL 24	PRM 164	CTL 88	PRM 24		
CTL 25	PRM 239	CTL 89	PRM 75		
CTL 26	PRM 240	CTL 90	PRM 76		
CTL 27	PRM 241	CTL 91	PRM 77		
CTL 28	PRM 242	CTL 92	PRM 78		
CTL 29	PRM 247	CTL 93	PRM 87		
CTL 30	PRM 246	CTL 94	PRM 86		
CTL 31	PRM 188	CTL 95	PRM 48		

13.4.10 Channel information

The following MIDI formats refer to Channel information messages:

Control Change

When CONTROL CHANGE (CTL) RECEIVE is ON (•), a Control Change message may be received on the selected MIDI channel or if OMNI is ON, on any channel.

The DMR8 only uses one MIDI channel, it does not use one for each bank. The parameter affected by the received COntrol Change message will depend on the Control Parameter assignment, according to the Control Number and Parameter Number Assignment table.

If several controllers are assigned to the same parameter, the highest Controller number will take precedence. A Control Change message may also be transmitted when an F3 MIDI EVENT is recalled.

STATUS	1011nnnn (BnH)	n=0 (channel no.1) n=15 (channel no.16)
CONTROL No.	0ccccccc	c=0-95,102-120
VALUE	0vvvvvvv	V=0-127

Program Change

When PROGRAM CHANGE (PGM) RECEIVE is ON (•), a Program Change message may be received on the selected MIDI channel or, if OMNI is ON, on any MIDI channel. The DMR8 only uses one MIDI channel, and does not use one for each bank.

STATUS	1100nnnn (CnH)	n=0 (channel no.1) n=15 (channel no.16)
PROGRAM No.	0ppppppp	p=0-127

13.4.11 System Real Time

(Active Sensing)

The DMR8 expects an Active Sensing message at intervals of less than 300ms. If it does not receive an Active Sensing message within 300ms after the last one has been received, received MIDI data will be cleared. Any running status will also be cleared.

STATUS	11111110 (FEH)

13.4.12 System Exclusive

Two types of System Exclusive message may be received by the DMR8: Parameter Change and Bulk Dump.

The format for both of these is the same as the format of the transmitted data.

Parameter Change messages are only acted on when the EXCLUSIV (EXCL) receive is enabled on the MIDI channel on which the messages are transmitted. If OMNI is set to ON, these messages may be transmitted on any channel.

The MIDI Control Change parameters are listed in the next section.

13.4.13 MIDI Control Change parameters

NUMBER	REC MIX PARAMETER	MIXDOWN PARAMETER
0	NON ASSIGN	NON ASSIGN
1-8	CH [SOLO] ON/OFF (CH 1-8)	CH [SOLO] ON/OFF (CH 1-8)
9-16	MONI CUE ON/OFF (CH 1-8)	CH [SOLO] ON/OFF (CH 9-16)
17-24	C-R [SOLO] ON/OFF (CH 1-8)	CH [SOLO] ON/OFF (CH 17-24)
25-32	CH EQ ON/OFF (CH 1-8)	CH EQ ON/OFF (CH 1-8)
33-40	CH CUE ON/OFF (CH 1-8)	CH EQ ON/OFF (CH 9-16)
41	SUB IN TO CUE ON/OFF	CH EQ ON/OFF (CH 17)
42-44	RETURN TO CUE ON/OFF (1-3)	CH EQ ON/OFF (CH 18-20)
45	SUB IN TO C-R ON/OFF	CH EQ ON/OFF (CH 21)
46,47	RETURN TO C-R ON/OFF (1,2)	CH EQ ON/OFF (CH 22,23)
48	C-R MASTER ON/OFF	CH EQ ON/OFF (CH 24)
49	SEND1 PRE/POST (CH 1-4)	SEND1 PRE/POST (CH 1-4)
50	SEND1 PRE/POST (CH 5-8)	SEND1 PRE/POST (CH 5-8)
51	(MIXDOWN ONLY)	SEND1 PRE/POST (CH 9-12)
52	(MIXDOWN ONLY)	SEND1 PRE/POST (CH 13-16)
53	(MIXDOWN ONLY)	SEND1 PRE/POST (CH 17-20)
54	(MIXDOWN ONLY)	SEND1 PRE/POST (CH 21-24)
55	SEND2 PRE/POST (CH 1-4)	SEND2 PRE/POST (CH 1-4)
56	SEND2 PRE/POST (CH 5-8)	SEND2 PRE/POST (CH 5-8)
57	(MIXDOWN ONLY)	SEND2 PRE/POST (CH 9-12)
58	(MIXDOWN ONLY)	SEND2 PRE/POST (CH 13-16)
59	(MIXDOWN ONLY)	SEND2 PRE/POST (CH 17-20)
60	(MIXDOWN ONLY)	SEND2 PRE/POST (CH 21-24)
61	SEND3 PRE/POST(CH 1-4)	SEND3 PRE/POST (CH 1-4)
62	SEND3 PRE/POST (CH 5-8)	SEND3 PRE/POST (CH 5-8)
63	(MIXDOWN ONLY)	SEND3 PRE/POST (CH 9-12)
64	(MIXDOWN ONLY)	SEND3 PRE/POST (CH 13-16)
65	(MIXDOWN ONLY)	SEND3 PRE/POST (CH 17-20)
66	(MIXDOWN ONLY)	SEND3 PRE/POST (CH 21-24)
67	PHASE (CH 1-4)	PHASE (CH 1-4)
68	PHASE (CH 5-8)	PHASE (CH 5-8)
69	SLAVE TO CUE ON/OFF	PHASE (CH 9-12)
70	SLAVE TO C-R [SOLO] ON/OFF	PHASE (CH 13-16)
71	AUX IN ON/OFF (1)	PHASE (CH 17-20)
72	AUX IN ON/OFF (2)	PHASE (CH 21-24)
73,74	AUX OUT ON/OFF (1,2)	AUX OUT ON/OFF (1,2)
75	SUB IN [SOLO] ON/OFF	SUB IN [SOLO] ON/OFF
76-78	RETURN [SOLO] ON/OFF (1-3)	RETURN [SOLO] ON/OFF (1-3)
79	SUB IN EQ ON/OFF	SUB IN EQ ON/OFF

80-82	RETURN EQ ON/OFF (1-3)	RETURN EQ ON/OFF (1-3)
83-85	SEND MASTER [SOLO] ON/OFF (1-3)	SEND MASTER [SOLO] ON/OFF (1-3)
86	MONI CUE MASTER ON/OFF	MONI CUE MASTER ON/OFF
87	PGM MASTER ON/OFF	ST MASTER ON/OFF
88	SOLO MODE ON/OFF	SOLO MODE ON/OFF
89-96	CH PAN (CH 1-8)	CH PAN (CH 1-8)
97-104	MONI CUE PAN (CH 1-8)	CH PAN (CH 9-16)
105-112	C-R PAN (CH 1-8)	CH PAN (CH 17-24)
113	SUB IN BALANCE	SUB IN BALANCE
114-116	RETURN BALANCE (1-3)	RETURN BALANCE (1-3)
117-124	INPUT ATT (CH 1-8)	INPUT ATT (CH 1-8)
125-132	(MIXDOWN ONLY)	INPUT ATT (CH 9-16)
133-140	(MIXDOWN ONLY)	INPUT ATT (CH 17-24)
141-148	CH FADER (CH 1-8)	CH FADER (CH 1-8)
149-156	MONI CUE FADER (CH 1-8)	CH FADER (CH 9-16)
157-164	C-R FADER (CH 1-8)	CH FADER (CH 17-24)
165-172	SEND1 FADER (CH 1-8)	SEND1 FADER (CH 1-8)
173-180	CH CUE FADER (1-8)	SEND1 FADER (CH 9-16)
181	SUB IN TO CUE FADER	SEND1 FADER (CH 17)
182-184	RETURN TO CUE FADER (1-3)	SEND1 FADER (CH 18-20)
185	SUB IN TO C-R FADER	SEND1 FADER (CH 21)
186,187	RETURN TO C-R FADER (1,2)	SEND1 FADER (CH 22,23)
188	C-R MASTER FADER	SEND1 FADER (CH 24)
189-196	SEND2 FADER (CH 1-8)	SEND2 FADER (CH 1-8)
197-204	(MIXDOWN ONLY)	SEND2 FADER (CH 9-16)
205-212	(MIXDOWN ONLY)	SEND2 FADER (CH 17-24)
213-220	SEND3 FADER (CH 1-8)	SEND3 FADER (CH 1-8)
221-228	(MIXDOWN ONLY)	SEND3 FADER (CH 9-16)
229-232	(MIXDOWN ONLY)	SEND3 FADER (CH 17-20)
233	SLAVE TO CUE FADER	SEND3 FADER (CH 21)
234	SLAVE TO C-R FADER	SEND3 FADER (CH 22)
235,236	AUX IN FADER (1,2)	SEND3 FADER (CH 23,24)
237,238	AUX OUT FADER (1,2)	AUX OUT FADER (1,2)
239	SUB IN FADER	SUB IN FADER
240-242	RETURN FADER (1-3)	RETURN FADER (1-3)
243-245	SEND MASTER FADER (1-3)	SEND MASTER FADER (1-3)
246	MONI CUE MASTER FADER	MONI CUE MASTER FADER
247	PGM MASTER FADER	ST MASTER FADER
248-255	INPUT DELAY (CH 1-8)	INPUT DELAY (CH 1-8)
256-263	(MIXDOWN ONLY)	INPUT DELAY (CH 9-16)
264-271	(MIXDOWN ONLY)	INPUT DELAY (CH 17-24)
272-279	CH EQ LOW FREQ (CH 1-8)	CH EQ LOW FREQ (CH 1-8)
280-287	(MIXDOWN ONLY)	CH EQ LOW FREQ (CH 9-16)
288-295	(MIXDOWN ONLY)	CH EQ LOW FREQ (CH 17-24)
296-303	CH EQ LOW GAIN (CH 1-8)	CH EQ LOW GAIN (CH 1-8)
304-311	(MIXDOWN ONLY)	CH EQ LOW GAIN (CH 9-16)
312-319	(MIXDOWN ONLY)	CH EQ LOW GAIN (CH 17-24)
320-327	CH EQ LOW Q (CH 1-8)	CH EQ LOW Q (CH 1-8)

328-335	(MIXDOWN ONLY)	CH EQ LOW Q (CH 9-16)
336-343	(MIXDOWN ONLY)	CH EQ LOW Q (CH 17-24)
344-351	CH EQ MID FREQ (CH 1-8)	CH EQ MID FREQ (CH 1-8)
352-359	(MIXDOWN ONLY)	CH EQ MID FREQ (CH 9-16)
360-367	(MIXDOWN ONLY)	CH EQ MID FREQ (CH 17-24)
368-375	CH EQ MID GAIN (CH 1-8)	CH EQ MID GAIN (CH 1-8)
376-383	(MIXDOWN ONLY)	CH EQ MID GAIN (CH 9-16)
384-391	(MIXDOWN ONLY)	CH EQ MID GAIN (CH 17-24)
392-399	CH EQ MID Q (CH 1-8)	CH EQ MID Q (CH 1-8)
400-407	(MIXDOWN ONLY)	CH EQ MID Q (CH 9-16)
408-415	(MIXDOWN ONLY)	CH EQ MID Q (CH 17-24)
416-423	CH EQ HIGH FREQ (CH 1-8)	CH EQ HIGH FREQ (CH 1-8)
424-431	(MIXDOWN ONLY)	CH EQ HIGH FREQ (CH 9-16)
432-439	(MIXDOWN ONLY)	CH EQ HIGH FREQ (CH 17-24)
440-447	CH EQ HIGH GAIN (CH 1-8)	CH EQ HIGH GAIN (CH 1-8)
448-455	(MIXDOWN ONLY)	CH EQ HIGH GAIN (CH 9-16)
456-463	(MIXDOWN ONLY)	CH EQ HIGH GAIN (CH 17-24)
464-471	CH EQ HIGH Q (CH 1-8)	CH EQ HIGH Q (CH 1-8)
472-479	(MIXDOWN ONLY)	CH EQ HIGH Q (CH 9-16)
480-487	(MIXDOWN ONLY)	CH EQ HIGH Q (CH 17-24)
488	SUB IN EQ LOW FREQ	SUB IN EQ LOW FREQ
489-491	RETURN EQ LOW FREQ (1-3)	RETURN EQ LOW FREQ (1-3)
492	SUB IN EQ LOW GAIN	SUB IN EQ LOW GAIN
493-495	RETURN EQ LOW GAIN (1-3)	RETURN EQ LOW GAIN (1-3)
496	SUB IN EQ LOW Q	SUB IN EQ LOW Q
497-499	RETURN EQ LOW Q (1-3)	RETURN EQ LOW Q (1-3)
500	SUB IN EQ MID FREQ	SUB IN EQ MID FREQ
501-503	RETURN EQ MID FREQ (1-3)	RETURN EQ MID FREQ (1-3)
504	SUB IN EQ MID GAIN	SUB IN EQ MID GAIN
505-507	RETURN EQ MID GAIN (1-3)	RETURN EQ MID GAIN (1-3)
508	SUB IN EQ MID Q	SUB IN EQ MID Q
509-511	RETURN EQ MID Q (1-3)	RETURN EQ MID Q (1-3)
512	SUB IN EQ HIGH FREQ	SUB IN EQ HIGH FREQ
513-515	RETURN EQ HIGH FREQ (1-3)	RETURN EQ HIGH FREQ (1-3)
516	SUB IN EQ HIGH GAIN	SUB IN EQ HIGH GAIN
517-519	RETURN EQ HIGH GAIN (1-3)	RETURN EQ HIGH GAIN (1-3)
520	SUB IN EQ HIGH Q	SUB IN EQ HIGH Q
521-523	RETURN EQ HIGH Q (1-3)	RETURN EQ HIGH Q (1-3)
524	EFFECT 1 SELECT	EFFECT 1 SELECT
525-534	EFFECT 1 PARAMETER (1-10)	EFFECT 1 PARAMETER (1-10)
535	EFFECT 2 SELECT	EFFECT 2 SELECT
536-545	EFFECT 2 PARAMETER (1-10)	EFFECT 2 PARAMETER (1-10)
546	EFFECT 3 SELECT	EFFECT 3 SELECT
547-556	EFFECT 3 PARAMETER (1-10)	EFFECT 3 PARAMETER (1-10)
557	CH 1 EFFECT SELECT	CH 1 EFFECT SELECT
558-561	CH 1 EFFECT PARAMETER (1-4)	CH 1 EFFECT PARAMETER (1-4)
562	CH 2 EFFECT SELECT	CH 2 EFFECT SELECT
563-566	CH 2 EFFECT PARAMETER (1-4)	CH 2 EFFECT PARAMETER (1-4)

567	CH 3 EFFECT SELECT	CH 3 EFFECT SELECT
568-571	CH 3 EFFECT PARAMETER (1-4)	CH 3 EFFECT PARAMETER (1-4)
572	CH 4 EFFECT SELECET	CH 4 EFFECT SELECT
573-576	CH 4 EFFECT PARAMETER (1-4)	CH 4 EFFECT PARAMETER (1-4)
577	CH 5 EFFECT SELECT	CH 5 EFFECT SELECT
578-581	CH 5 EFFECT PARAMETER (1-4)	CH 5 EFFECT PARAMETER (1-4)
582	CH 6 EFFECT SELECT	CH 6 EFFECT SELECT
583-586	CH 6 EFFECT PARAMETER (1-4)	CH 6 EFFECT PARAMETER (1-4)
587	CH 7 EFFECT SELECT	CH 7 EFFECT SELECT
588-591	CH 7 EFFECT PARAMETER (1-4)	CH 7 EFFECT PARAMETER (1-4)
592	CH 8 EFFECT SELECT	CH 8 EFFECT SELECT
593-596	CH 8 EFFECT PARAMETER (1-4)	CH 8 EFFECT PARAMETER (1-4)
597,598	INPUT INSERT(1,2)	INPUT INSERT(1,2)

13.4.14 Control assign parameter abbreviations

NON ASSIGN	Not assigned
XDOWN ONLY	MIXDOWN ONLY
CH 1 ON	1CH [SOLO] ON/OFF
CUE 1 ON	1CH MONI CUE ON/OFF
C-R 1 ON	1CH C-R ON/OFF
CHCUE 1 ON	1CH CH CUE ON/OFF
EQ 1 ON	1CH EQ ON/OFF
PHA 1- 4	PHASE(CH 1-4)
SD1 1- 4	SEND1 PRE/POST(CH 1-4)
SUB ON	SUB IN [SOLO] ON/OFF
RT1 ON	RETURN 1 [SOLO] ON/OFF
SUB EQ ON	SUB IN EQ ON/OFF
RT1 EQ ON	RETURN 1 EQ ON/OFF
SUB CUE ON	SUB IN TO CUE ON/OFF
RT1 CUE ON	RETURN 1 TO CUE ON/OFF
SUB C-R ON	SUB IN TO C-R ON/OFF
RT1 C-R ON	RETURN 1 TO C-R ON/OFF
SLV C-R ON	SLAVE TO C-R [SOLO] ON/OFF
SLV CUE ON	SLAVE TO CUE ON/OFF
AUX1 IN ON	AUX 1 IN ON/OFF
AUX1OUT ON	AUX 1 OUT ON/OFF
SD1 MAS ON	SEND MASTER [SOLO] ON/OFF
CUE MAS ON	MONI CUE MASTER ON/OFF
C-R MAS ON	C-R MASTER [SOLO] ON/OFF
PGM MAS ON	PGM MASTER ON/OFF
ST MAS ON	ST MASTER ON/OFF
SOLO ON	SOLO MODE ON/OFF
CH 1 PAN	1CH PAN
CUE 1 PAN	1CH MONI CUE PAN
C-R 1 PAN	1CH C-R PAN
SUB BAL	SUB IN BALANCE
RT1 BAL	RETURN 1 BALANCE
CUE BAL	MONI MASTER BALANCE
ST BAL	ST MASTER BALANCE
CH 1 FD	1CH FADER
SD1 1 FD	1CH SEND1 FADER
EQ 1 L F	1CH EQ LOW FREQ

EQ 1 M G	1CH EQ MID GAIN
EQ 1 H Q	1CH EQ HIGH Q
SUB EQ L F	SUB IN EQ LOW FREQ
RT1 EQ L F	RETURN 1 EQ LOW FREQ
EFF1 SEL	EFFECT 1 SELECT
EFF1 PRM 1	EFFECT 1 PARAMETER 1
CEF 1 SEL	1CH CH EFFECT SELECT
CEF 1 PRM1	1CH CH EFFECT PARAMETER 1
DELAY 1	1CH INPUT DELAY
ATT 1	1CH INPUT ATT
INSERT 1	INPUT INSERT 1

13.4.15 MIDI Implementation Chart

YAMAHA [Digital Mixer/Recorder]   Date : 1/17, 1991
Model DMR8   MIDI Implementation Chart   Version : 2.0

Function ...		Transmitted	Recognized	Remarks
Basic Channel	Default	1 - 16	1 - 16	memorized
	Changed	1 - 16	1 - 16	
Mode	Default	x	OMNIoff/OMNIon	memorized
	Messages	x	x *3	
	Altered	**************	x	
Note Number		0 - 127	x *3	by F3 MIDI
	True voice	**************	x	event recall
Velocity	Note ON	o 9nH,v=0-127	x *3	by F3 MIDI
	Note OFF	x	x *3	event recall
After	Key's	x	x *3	
	Ch's	x	x *3	
Pitch Bender		x	x *3	
Control Change	0 - 95,102 - 120	o *5	o *5	*1
	0 - 120	o	x *3	by F3 MIDI event recall
Prog Change		o 0 - 127 *5	o 0 - 127 *5	*2, by f3 MIDI
	True #	**************	F1- 1 - F4-32	event recall
System Exclusive		o/o /*5	o/o /*5	Bulk/Parameter
System Common	Song Pos	o	x *4	in MIDI SYNC
	Song Sel	o	x *4	in MIDI SYNC
	Tune	x	x *3	
System Real Time	Clock	o	x *4	in MIDI SYNC
	Commands	o	x *4	in MIDI SYNC
Aux Messages	Local ON/OFF	x	x *3	
	All Notes OFF	x	x *3	
	Active Sense	o	x	
	Reset	x	x	

Notes:
*1 = Each parameter can be assigned to any Control Change.
*2 = For program 1 - 128, memory F1- 1 - F4-32 is selected.
*3 = When ECHO ON, these messages are bypassed to MIDI OUT.
*4 = When ECHO ON and SYNC OFF, these messages are bypassed.
*5 = Enabled or disabled by MIDI I/O set.

Mode 1 : OMNI ON, POLY   Mode 2 : OMNI ON, MONO   o : Yes
Mode 3 : OMNI OFF, POLY   Mode 4 : OMNI OFF, MONO   o : No

13.5 Character chart

The following character set is available on both the main display and the sub-display of the DMR8.

Use the numeric keypad to enter numbers.

Use the numeric keypad in [SHIFT] mode to enter alphabetic characters and some common punctuation symbols.

The [small] key is used to change a character from uppercase to lowercase and *vice versa.*

For additional punctuation and Japanese *katakana,* use the ASSIGN·EDIT [↑] and [↓] keys to enter these symbols.

First Space (↓ marks the cell after 9)

♯	0	1	2	3	4	5	6	7	8	9		A	B	C	D	E	F
G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
Y	Z		a	a	b	c	d	e	f	g	h	i	j	k	l	m	n
o	ö	p	q	r	s	t	u	ü	v	w	x	y	z		[	]	<
>	:	·	*	+	−	=	&	/	,	.	·	%	!	?	→	←	
「	」	"		ー	ア	ァ	イ	ィ	ウ	ゥ	エ	ェ	オ	ォ	カ	キ	ク
ケ	コ	サ	シ	ス	セ	ソ	タ	チ	ツ	ッ	テ	ト	ナ	ニ	ヌ	ネ	ノ
ハ	ヒ	フ	ヘ	ホ	マ	ミ	ム	メ	モ	ヤ	ャ	ユ	ュ	ヨ	ョ	ラ	リ
ル	レ	ロ	ワ	ヲ	ン												

13.6 "F" Memory lists

The following is a list of the "F" memories:

	1 (ALL)	2 (GROUP)	3 (SETTING)
1	*REC MIX initial data*	Equalizer #1	Channel names #1
2	REC MIX memory	Equalizer #2	Channel names #2
3	↑	Equalizer #3	Track names #1
4	↑	Equalizer #4	Track names #2
5	↑	ON/OFF #1	Grouping #1
6	↑	ON/OFF #2	Grouping #2
7	↑	ON/OFF #3	Stereo groups #1
8	↑	ON/OFF #4	Stereo groups #2
9	↑	Fader #1	Crossfade time #1 †
10	↑	Fader #2	Crossfade time #2 †
11	↑	Fader #3	Fade time (channel) #1 ¶
12	↑	Fader #4	Fade time (channel) #2 ¶
13	↑	Panpot #1	Fade time (main) #1 ¶
14	↑	Panpot #2	Fade time (main) #2 ¶
15	↑	Panpot #3	8 faders #1
16	↑	Panpot #4	8 faders #2
17	*MIXDOWN initial data*	Channel effect #1	8 panpots #1
18	MIXDOWN memory	Channel effect #2	8 EQ settings
19	↑	Channel effect #3	Channel EQ #1
20	↑	Channel effect #4	Channel EQ #2
21	↑	Effect #1	8 names #1
22	↑	Effect #2	8 names #2
23	↑	Effect #3	Offset #1
24	↑	Effect #4	Offset #2
25	↑	*Equalizer ON and flat*	MIDI output #1 ¶
26	↑	*ON/OFF switches all OFF*	MIDI output #2 ¶
27	↑	*ON/OFF switches all ON*	MIDI output #3 ¶
28	↑	*All faders zero*	MIDI output #4 ¶
29	↑	*Channel faders nominal*	Remote settings #1 ¶
30	↑	*10th fader nominal*	Remote settings #2 ¶
31	↑	*All panpots center*	Remote settings #3 ¶
32	↑	*Panpots as four stereo pairs*	Remote settings #4 ¶

NOTES:

1) Memories described in *italics* are factory presets and may not be changed.
2) Memory banks 2 and 3 are double banks; one set of 32 memories for bank 2 is available for recording modes, and another for mixdown.
3) Memories in bank 3 marked thus: †, are available only in recording modes, and are replaced by "Input Group 1 & 2" in MIXDOWN mode.
4) Memories in bank 3 marked thus: ‡ (3 and 4) are track names in RECMIX modes and channel names (3 and 4) in MIXDOWN mode.
5) Memories in bank 3 marked thus: ¶ can only have their values set and edited in the HELP menus.
6) Bank 4 consists solely of user-definable location points
7) When in RECMIX modes, only memories 1 - 16 may be selected from the F1 bank, and when in MIX-DOWN, only memories 17 - 32 may be selected. This only applies to the F1 bank.

13.7 RECMIX initial data

Channel settings

Parameter		Chs 1 - 8
Delay		000
Phase		Normal
In insert 1		-
In insert 2		-
Attenuation		00dB
LOW EQ	Frequency	100Hz
	Gain	0dB
	Q	0.7
	Peak/shelf	Peak
MID EQ	Frequency	1.0kHz
	Gain	0dB
	Q	0.7
HIGH EQ	Frequency	10kHz
	Gain	0dB
	Q	0.7
	Peak/shelf	Peak
EQ ON/OFF		ON
Channel effect	Select	OFF
	Param 1	-
	Param 2	-
	Param 3	-
	Param 4	-
Patch		OFF
Channel ON/OFF		ON
Channel level		∞
Panpot		Center
Send 1	Pre/post	Post
	Level	∞
Send 2	Pre/post	Post
	Level	∞
CH cue	ON/OFF	ON
	Level	∞

Effect and SUB IN settings

	Return 1	Return 2	Return 3
Effect type	REV 1 HALL A	REV 1 HALL B	REV 2 ROOM
Parameter 1	RVT = 2.6s	RVT = 2.6s	RVT = 0.8s
Parameter 2	HIG = 0.6	HIG = 0.6	HIG = 0.7
Parameter 3	LOW = 1.2	DIF = 5	DIF = 5
Parameter 4	DIF = 5	IND = 30.0ms	IND = 20.0ms
Parameter 5	IND = 30.0ms	HPF = THRU	HPF=THRU
Parameter 6	HPF = THRU	LPF = 8.0kHz	LPF = 8.0kHz
Parameter 7	LPF = 8.0kHz	ERB = 50%	ERB = 50%
Parameter 8	ERB = 50%	RVD = 20.9ms	RVD = 23.9ms
Parameter 9	RVD = 36.0ms	DEN = 4	DEN = 4
Parameter 10	DEN = 4	---	---
RTN to PGM	ON	ON	xxx
RTN to PGM level	∞	∞	xxx
RTN to C-R	ON	ON	ON
RTN to C-R level	∞	∞	∞
RTN to CUE	ON	ON	ON
RTN to CUE level	∞	∞	∞
EQ settings for returns 1-3 and SUB IN			
LOW EQ	Frequency	100Hz	
	Gain	0dB	
	Q	0.7	
	Peak/shelf	Peak	
MID EQ	Frequency	1.0kHz	
	Gain	0dB	
	Q	0.7	
HIGH EQ	Frequency	10kHz	
	Gain	0dB	
	Q	0.7	
	Peak/shelf	Peak	
EQ ON/OFF		ON	
MONO/STEREO		STEREO	
SUB IN to PGM	ON/OFF	ON	
	Level	∞	
SUB IN to C-R	ON/OFF	ON	
	Level	∞	
SUB IN to CUE	ON/OFF	ON	
	Level	∞	

Other parameters

Chs 1-8 to C-R	ON/OFF	ON
	Level	∞
	Panpot	Center
Send 3 to C-R	Pre/post	Post
	Level	∞
Chs 1-8 to CUE	ON/OFF	ON
	Level	∞
	Panpot	Center
PGM master	ON/OFF	ON
	Level	∞
C-R master	ON/OFF	ON
	Level	∞
CUE master	ON/OFF	ON
	Level	∞
Sends 1-3	ON/OFF	ON
	Level	∞
SLAVE to CUE and C-R	ON/OFF	ON
	Level	∞
AUX IN (1 and 2)	ON/OFF	ON
	Level	∞
AUX OUT (1 and 2)	ON/OFF	ON
	Level	∞
OUT INSERT		OFF
MONITOR INSERT		OFF
CASCADE IN	ON/OFF	OFF
	Pre/post	Post
Patch point	Pre/post	Post

13.8 MIXDOWN initial data

Channel settings

Parameter		Chs 1 - 24
Delay		000
Attenuation		00dB
LOW EQ	Frequency	100Hz
	Gain	0dB
	Q	0.7
	Peak/shelf	Peak
MID EQ	Frequency	1.0kHz
	Gain	0dB
	Q	0.7
HIGH EQ	Frequency	10kHz
	Gain	0dB
	Q	0.7
	Peak/shelf	Peak
EQ ON/OFF		ON
Channel ON/OFF		ON
Phase		Normal
Channel level		∞
Panpot		Center
Send 1	Pre/post	Post
	Level	∞
Send 2	Pre/post	Post
	Level	∞
CH cue	ON/OFF	ON
	Level	∞

In addition, channels 1-8 have the following parameters set:

Parameter		Chs 1-8
In insert 1		-
In insert 2		-
Channel effect	Select	OFF
	Param 1	-
	Param 2	-
	Param 3	-
	Param 4	-
Patch		OFF

Effect settings

	Return 1	Return 2	Return 3
Effect type	REV 1 HALL A	REV 1 HALL B	REV 2 ROOM
Parameter 1	RVT = 2.6s	RVT = 2.6s	RVT = 0.8s
Parameter 2	HIG = 0.6	HIG = 0.6	HIG = 0.7
Parameter 3	LOW = 1.2	DIF = 5	DIF = 5
Parameter 4	DIF = 5	IND = 30.0ms	IND = 20.0ms
Parameter 5	IND = 30.0ms	HPF = THRU	HPF=THRU
Parameter 6	HPF = THRU	LPF = 8.0kHz	LPF = 8.0kHz
Parameter 7	LPF = 8.0kHz	ERB = 50%	ERB = 50%
Parameter 8	ERB = 50%	RVD = 20.9ms	RVD = 23.9ms
Parameter 9	RVD = 36.0ms	DEN = 4	DEN = 4
Parameter 10	DEN = 4	---	---
RTN to PGM	ON	ON	xxx
RTN to PGM level	∞	∞	xxx

EQ settings for returns 1-3 and SUB IN

LOW EQ	Frequency	100Hz
	Gain	0dB
	Q	0.7
	Peak/shelf	Peak
MID EQ	Frequency	1.0kHz
	Gain	0dB
	Q	0.7
HIGH EQ	Frequency	10kHz
	Gain	0dB
	Q	0.7
	Peak/shelf	Peak
EQ ON/OFF		ON
MONO/STEREO		STEREO
Stereo out	ON/OFF	ON
	Level	∞

Other parameters

Stereo master	ON/OFF	ON
	Level	∞
CUE master	ON/OFF	ON
	Level	∞
Sends 1-3	ON/OFF	ON
	Level	∞
AUX IN (1 and 2)	ON/OFF	ON
	Level	∞
AUX OUT (1 and 2)	ON/OFF	ON
	Level	∞
OUT INSERT		OFF
MONITOR INSERT		OFF
CASCADE IN	ON/OFF	OFF
	Pre/post	Post
Patch point	Pre/post	Post

13.9 Preset style settings

The following are the settings from the preset styles accessed through the INITIAL SET pages.

They include:

- Channel names
- Track names
- Channel-to-track assignments
- Mixdown channel names
- Mixdown input groups

P0 - 8ch/8tr Independent

MODE	ALL REC	SYNC DUB	PING-PONG	PUNCH IN	TRACK EDIT
CHANNEL NAME					
CH1	=1=	=1=	=1=	=1=	
CH2	=2=	=2=	=2=	=2=	
CH3	=3=	=3=	=3=	=3=	
CH4	=4=	=4=	=4=	=4=	
CH5	=5=	=5=	=5=	=5=	
CH6	=6=	=6=	=6=	=6=	
CH7	=7=	=7=	=7=	=7=	
CH8	=8=	=8=	=8=	=8=	
TRACK NAME					
CH1	-1-	-1-	-1-	-1-	-1-
CH2	-2-	-2-	-2-	-2-	-2-
CH3	-3-	-3-	-3-	-3-	-3-
CH4	-4-	-4-	-4-	-4-	-4-
CH5	-5-	-5-	-5-	-5-	-5-
CH6	-6-	-6-	-6-	-6-	-6-
CH7	-7-	-7-	-7-	-7-	-7-
CH8	-8-	-8-	-8-	-8-	-8-
TRACK ASSIGN					
CH1	-------o	-------o	-------o	-------o	-------o
CH2	------o-	------o-	------o-	------o-	------o-
CH3	-----o--	-----o--	-----o--	-----o--	-----o--
CH4	----o---	----o---	----o---	----o---	----o---
CH5	---o----	---o----	---o----	---o----	---o----
CH6	--o-----	--o-----	--o-----	--o-----	--o-----
CH7	-o------	-o------	-o------	-o------	-o------
CH8	o-------	o-------	o-------	o-------	o-------
RTN1	--------	--------	--------	--------	--------
RTN2	--------	--------	--------	--------	--------
SUB	--------	--------	--------	--------	--------
• RECORD TRACK		--------	--------	--------	--------
MIXING TRACK			--------	--------	--------
MONITOR SEL.		--------	--------	--------	--------

MIXDOWN MODE								
DMR NAME	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
SLAVE NAME	-9-	-10-	-11-	-12-	-13-	-14-	-15-	-16-
A/D NAME	-17-	-18-	-19-	-20-	-21-	-22-	-23-	-24-
INPUT GROUP	A (DMR SLV AD)							

P1 - STchX4/STtrX4 Stereo Group

MODE	ALL REC	SYNC DUB	PING-PONG	PUNCH IN	TRACK EDIT
CHANNEL NAME					
CH1	1=L	1=L	1=L	1=L	
CH2	1=R	1=R	1=R	1=R	
CH3	2=L	2=L	2=L	2=L	
CH4	2=R	2=R	2=R	2=R	
CH5	3=L	3=L	3=L	3=L	
CH6	3=R	3=R	3=R	3=R	
CH7	4=L	4=L	4=L	4=L	
CH8	4=R	4=R	4=R	4=R	
TRACK NAME					
CH1	1-L	1-L	1-L	1-L	1-L
CH2	1-R	1-R	1-R	1-R	1-R
CH3	2-L	2-L	2-L	2-L	2-L
CH4	2-R	2-R	2-R	2-R	2-R
CH5	3-L	3-L	3-L	3-L	3-L
CH6	3-R	3-R	3-R	3-R	3-R
CH7	4-L	4-L	4-L	4-L	4-L
CH8	4-R	4-R	4-R	4-R	4-R
TRACK ASSIGN					
CH1	------oo	------oo	------oo	------oo	------oo
CH2	------oo	------oo	------oo	------oo	------oo
CH3	----oo--	----oo--	----oo--	----oo--	----oo--
CH4	----oo--	----oo--	----oo--	----oo--	----oo--
CH5	--oo----	--oo----	--oo----	--oo----	--oo----
CH6	--oo----	--oo----	--oo----	--oo----	--oo----
CH7	oo------	oo------	oo------	oo------	oo------
CH8	oo------	oo------	oo------	oo------	oo------
RTN1	--------	--------	--------	--------	--------
RTN2	--------	--------	--------	--------	--------
SUB	--------	--------	--------	--------	--------
RECORD TRACK		--------	--------	--------	--------
MIXING TRACK			--------	--------	--------
MONITOR SEL.		--------	--------	--------	--------

MIXDOWN MODE								
DMR NAME	1-L	1-R	2-L	2-R	3-L	3-R	4-L	4-R
SLAVE NAME	5-L	5-R	6-L	6-R	7-L	7-R	8-L	8-R
A/D NAME	9-L	9-R	10L	10R	11L	11R	12L	12R
INPUT GROUP	A(DMR SLV AD)							

P2 - Classic rec. at concert hall

MODE	ALL REC	SYNC DUB	PING-PONG	PUNCH IN	TRACK EDIT
CHANNEL NAME					
CH1	S-1	S-1	S-1	S-1	
CH2	S-2	S-2	S-2	S-2	
CH3	S-3	S-3	S-3	S-3	
CH4	STL	STL	STL	STL	
CH5	STC	STC	STC	STC	
CH6	STR	STR	STR	STR	
CH7	M-L	M-L	M-L	M-L	
CH8	M-R	M-R	M-R	M-R	
TRACK NAME					
CH1	s-L	s-L	s-L	s-L	s-L
CH2	s-R	s-R	s-R	s-R	s-R
CH3	stL	stL	stL	stL	stL
CH4	stR	stR	stR	stR	stR
CH5	m-L	m-L	m-L	m-L	m-L
CH6	m-R	m-R	m-R	m-R	m-R
CH7	h-L	h-L	h-L	h-L	h-L
CH8	h-R	h-R	h-R	h-R	h-R
TRACK ASSIGN					
CH1	------00	------00	------00	------00	------00
CH2	------00	------00	------00	------00	------00
CH3	------00	------00	------00	------00	------00
CH4	----00--	----00--	----00--	----00--	----00--
CH5	----00--	----00--	----00--	----00--	----00--
CH6	----00--	----00--	----00--	----00--	----00--
CH7	--00----	--00----	--00----	--00----	--00----
CH8	--00----	--00----	--00----	--00----	--00----
RTN1	00------	00------	00------	00------	00------
RTN2	------00	------00	------00	------00	------00
SUB	------00	------00	------00	------00	------00
RECORD TRACK		--------	--------	--------	--------
MIXING TRACK			--------	--------	--------
MONITOR SEL.		--------	--------	--------	--------

MIXDOWN MODE								
DMR NAME	s-L	s-R	stL	stR	m-L	m-R	h-L	h-R
SLAVE NAME	s-L	s-R	stL	stR	m-L	m-R	h-L	h-R
A/D NAME	s-L	s-R	stL	stR	m-L	m-R	h-L	h-R
INPUT GROUP	A (DMR SLV AD)							

P3 - String quartet at small hall

MODE	ALL REC	SYNC DUB	PING-PONG	PUNCH IN	TRACK EDIT
CHANNEL NAME					
CH1	1ST	1ST	1ST	1ST	
CH2	2ND	2ND	2ND	2ND	
CH3	VLA	VLA	VLA	VLA	
CH4	VCE	VCE	VCE	VCE	
CH5	M-L	M-L	M-L	M-L	
CH6	M-R	M-R	M-R	M-R	
CH7	H-L	H-L	H-L	H-L	
CH8	H-R	H-R	H-R	H-R	
TRACK NAME					
CH1	1st	1st	1st	1st	1st
CH2	2nd	2nd	2nd	2nd	2nd
CH3	vla	vla	vla	vla	vla
CH4	vce	vce	vce	vce	vce
CH5	m-L	m-L	m-L	m-L	m-L
CH6	m-R	m-R	m-R	m-R	m-R
CH7	h-L	h-L	h-L	h-L	h-L
CH8	h-R	h-R	h-R	h-R	h-R
TRACK ASSIGN					
CH1	-------o	-------o	-------o	-------o	-------o
CH2	------o-	------o-	------o-	------o-	------o-
CH3	-----o--	-----o--	-----o--	-----o--	-----o--
CH4	----o---	----o---	----o---	----o---	----o---
CH5	--oo----	--oo----	--oo----	--oo----	--oo----
CH6	--oo----	--oo----	--oo----	--oo----	--oo----
CH7	oo------	oo------	oo------	oo------	oo------
CH8	oo------	oo------	oo------	oo------	oo------
RTN1	--------	--------	--------	--------	--------
RTN2	--------	--------	--------	--------	--------
SUB	--------	--------	--------	--------	--------
RECORD TRACK		--------	--------	--------	--------
MIXING TRACK			--------	--------	--------
MONITOR SEL.		--------	--------	--------	--------

MIXDOWN MODE								
DMR NAME	1st	2nd	vla	vce	m-L	m-R	h-L	h-R
SLAVE NAME	1st	2nd	vla	vce	m-L	m-R	h-L	h-R
A/D NAME	1st	2nd	vla	vce	m-L	m-R	h-L	h-R
INPUT GROUP	A(DMR SLV AD)							

P4 - Jazz live Piano trio

MODE	ALL REC	SYNC DUB	PING-PONG	PUNCH IN	TRACK EDIT
CHANNEL NAME					
CH1	DrL	DrL	DrL	DrL	
CH2	DrR	DrR	DrR	DrR	
CH3	HH	HH	HH	HH	
CH4	SN	SN	SN	SN	
CH5	BDr	BDr	BDr	BDr	
CH6	BAS	BAS	BAS	BAS	
CH7	PfL	PfL	PfL	PfL	
CH8	PfR	PfR	PfR	PfR	
TRACK NAME					
CH1	drL	drL	drL	drL	drL
CH2	drR	drR	drR	drR	drR
CH3	bdr	bdr	bdr	bdr	bdr
CH4	bas	bas	bas	bas	bas
CH5	pfL	pfL	pfL	pfL	pfL
CH6	pfR	pfR	pfR	pfR	pfR
CH7	h-L	h-L	h-L	h-L	h-L
CH8	h-R	h-R	h-R	h-R	h-R
TRACK ASSIGN					
CH1	-------o	-------o	-------o	-------o	-------o
CH2	------o-	------o-	------o-	------o-	------o-
CH3	------oo	------oo	------oo	------oo	------oo
CH4	------oo	------oo	------oo	------oo	------oo
CH5	-----o--	-----o--	-----o--	-----o--	-----o--
CH6	----o---	----o---	----o---	----o---	----o---
CH7	--oo----	--oo----	--oo----	--oo----	--oo----
CH8	--oo----	--oo----	--oo----	--oo----	--oo----
RTN1	------oo	------oo	------oo	------oo	------oo
RTN2	--oo----	--oo----	--oo----	--oo----	--oo----
SUB	oo------	oo------	oo------	oo------	oo------
RECORD TRACK		--------	--------	--------	--------
MIXING TRACK			--------	--------	--------
MONITOR SEL.		--------	--------	--------	--------

MIXDOWN MODE								
DMR NAME	drL	drR	bdr	bas	pfL	pfR	h-L	h-R
SLAVE NAME	drL	drR	bdr	bas	pfL	pfR	h-L	h-R
A/D NAME	drL	drR	bdr	bas	pfL	pfR	h-L	h-R
INPUT GROUP	A(DMR SLV AD)							

P5 - Rock music at rec. studio

MODE	ALL REC	SYNC DUB	PING-PONG	PUNCH IN	TRACK EDIT
CHANNEL NAME					
CH1	KIC	KIC	KIC	KIC	
CH2	EB	EB	EB	EB	
CH3	EG1	EG1	EG1	EG1	
CH4	EG2	EG2	EG2	EG2	
CH5	VOC	VOC	VOC	VOC	
CH6	SYN	SYN	SYN	SYN	
CH7	PfL	PfL	PfL	PfL	
CH8	PfR	PfR	PfR	PfR	
TRACK NAME					
CH1	drL	drL	drL	drL	drL
CH2	drR	drR	drR	drR	drR
CH3	kic	kic	kic	kic	kic
CH4	eb	eb	eb	eb	eb
CH5	eg	eg	eg	eg	eg
CH6	voc	voc	voc	voc	voc
CH7	syn	syn	syn	syn	syn
CH8	pf	pf	pf	pf	pf
TRACK ASSIGN					
CH1	-----o--	-----o--	-----o--	-----o--	-----o--
CH2	----o---	----o---	----o---	----o---	----o---
CH3	---o----	---o----	---o----	---o----	---o----
CH4	---o----	---o----	---o----	---o----	---o----
CH5	--o-----	--o-----	--o-----	--o-----	--o-----
CH6	-o------	-o------	-o------	-o------	-o------
CH7	o-------	o-------	o-------	o-------	o-------
CH8	o-------	o-------	o-------	o-------	o-------
RTN1	--------	--------	--------	--------	--------
RTN2	--------	--------	--------	--------	--------
SUB	------oo	------oo	------oo	------oo	------oo
RECORD TRACK		--------	--------	--------	--------
MIXING TRACK			--------	--------	--------
MONITOR SEL.		--------	--------	--------	--------

MIXDOWN MODE								
DMR NAME	drL	drR	kic	eb	eg	voc	syn	pf
SLAVE NAME	drL	drR	kic	eb	eg	voc	syn	pf
A/D NAME	drL	drR	kic	eb	eg	voc	syn	pf
INPUT GROUP	A (DMR SLV AD)							

P6 - Personal rec. with midi

MODE	ALL REC	SYNC DUB	PING-PONG	PUNCH IN	TRACK EDIT
CHANNEL NAME					
CH1	EB	EB	EB	EB	
CH2	GT1	GT1	GT1	GT1	
CH3	GT2	GT2	GT2	GT2	
CH4	SOL	SOL	SOL	SOL	
CH5	VO1	VO1	VO1	VO1	
CH6	VO2	VO2	VO2	VO2	
CH7	CHO	CHO	CHO	CHO	
CH8	AUX	AUX	AUX	AUX	
TRACK NAME					
CH1	eb	eb	eb	eb	eb
CH2	gt1	gt1	gt1	gt1	gt1
CH3	gt2	gt2	gt2	gt2	gt2
CH4	sol	sol	sol	sol	sol
CH5	vo1	vo1	vo1	vo1	vo1
CH6	vo2	vo2	vo2	vo2	vo2
CH7	cho	cho	cho	cho	cho
CH8	aux	aux	aux	aux	aux
TRACK ASSIGN					
CH1	-------o	-------o	-------o	-------o	-------o
CH2	------o-	------o-	------o-	------o-	------o-
CH3	-----o--	-----o--	-----o--	-----o--	-----o--
CH4	----o---	----o---	----o---	----o---	----o---
CH5	---o----	---o----	---o----	---o----	---o----
CH6	--o-----	--o-----	--o-----	--o-----	--o-----
CH7	-o------	-o------	-o------	-o------	-o------
CH8	o-------	o-------	o-------	o-------	o-------
RTN1	--------	--------	--------	--------	--------
RTN2	--------	--------	--------	--------	--------
SUB	--------	--------	--------	--------	--------
RECORD TRACK		--------	--------	--------	--------
MIXING TRACK			--------	--------	--------
MONITOR SEL.		--------	--------	--------	--------

MIXDOWN MODE								
DMR NAME	eb	gt1	gt2	sol	vo1	vo2	cho	aux
SLAVE NAME	pfL	pfR	syn	org	brL	brR	stL	stR
A/D NAME	prc	kic	hh	sn	tmL	tmR	cyL	cyR
INPUT GROUP	A (DMR SLV AD)							

P7 - Personal rec. with DRU8

MODE	ALL REC	SYNC DUB	PING-PONG	PUNCH IN	TRACK EDIT
CHANNEL NAME					
CH1	DrL	PRC	PRC	PRC	
CH2	DrR	SY1	SY1	SY1	
CH3	KIC	SY2	SY2	SY2	
CH4	EB	SOL	SOL	SOL	
CH5	EG1	VO1	VO1	VO1	
CH6	EG2	VO2	VO2	VO2	
CH7	PfL	CHO	CHO	CHO	
CH8	PfR	AUX	AUX	AUX	
TRACK NAME					
CH1	drL	prc	prc	prc	prc
CH2	drR	sy1	sy1	sy1	sy1
CH3	kic	sy2	sy2	sy2	sy2
CH4	eb	sol	sol	sol	sol
CH5	eg1	vo1	vo1	vo1	vo1
CH6	eg2	vo2	vo2	vo2	vo2
CH7	pfL	cho	cho	cho	cho
CH8	pfR	aux	aux	aux	aux
RECORD TRACK					
CH1	------oo	-------o	-------o	-------o	-------o
CH2	------oo	------o-	------o-	------o-	------o-
CH3	-----o--	-----o--	-----o--	-----o--	-----o--
CH4	----o---	----o---	----o---	----o---	----o---
CH5	---o----	---o----	---o----	---o----	---o----
CH6	--o-----	--o-----	--o-----	--o-----	--o-----
CH7	oo------	-o------	-o------	-o------	-o------
CH8	oo------	o-------	o-------	o-------	o-------
RTN1	--------	--------	--------	--------	--------
RTN2	--------	--------	--------	--------	--------
SUB	--------	--------	--------	--------	--------
RECORD TRACK		--------	--------	--------	--------
MIXING TRACK			--------	--------	--------
MONITOR SEL.		--------	--------	--------	--------

MIXDOWN MODE								
DMR NAME	prc	sy1	sy2	sol	vo1	vo2	cho	aux
SLAVE NAME	drL	drR	kic	eb	eg1	eg2	pfL	pfR
A/D NAME	drL	drR	kic	eb	eg1	eg2	pfL	pfR
INPUT GROUP	A (DMR SLV AD)							

P8 - Pops festival live recording

MODE	ALL REC	SYNC DUB	PING-PONG	PUNCH IN	TRACK EDIT
CHANNEL NAME					
CH1	SO1	SO1	SO1	SO1	
CH2	SO2	SO2	SO2	SO2	
CH3	VO1	VO1	VO1	VO1	
CH4	VO2	VO2	VO2	VO2	
CH5	VO3	VO3	VO3	VO3	
CH6	CHF	CHF	CHF	CHF	
CH7	CHM	chM	chM	chM	
CH8	MC	MC	MC	MC	
TRACK NAME					
CH1	so1	so1	so1	so1	so1
CH2	so2	so2	so2	so2	so2
CH3	vo1	vo1	vo1	vo1	vo1
CH4	vo2	vo2	vo2	vo2	vo2
CH5	vo3	vo3	vo3	vo3	vo3
CH6	chF	chF	chF	chF	chF
CH7	chM	chM	chM	chM	chM
CH8	mc	mc	mc	mc	mc
TRACK ASSIGN					
CH1	-------o	-------o	-------o	-------o	-------o
CH2	------o-	------o-	------o-	------o-	------o-
CH3	-----o--	-----o--	-----o--	-----o--	-----o--
CH4	----o---	----o---	----o---	----o---	----o---
CH5	---o----	---o----	---o----	---o----	---o----
CH6	--o-----	--o-----	--o-----	--o-----	--o-----
CH7	-o------	-o------	-o------	-o------	-o------
CH8	o-------	o-------	o-------	o-------	o-------
RTN1	--------	--------	--------	--------	--------
RTN2	--------	--------	--------	--------	--------
SUB	------oo	------oo	------oo	------oo	------oo
RECORD TRACK		--------	--------	--------	--------
MIXING TRACK			--------	--------	--------
MONITOR SEL.		--------	--------	--------	--------

MIXDOWN MODE								
DMR NAME	so1	so2	vo1	vo2	vo3	chF	chM	mc
SLAVE NAME	pf	syn	brL	brR	stL	stR	haL	haR
A/D NAME	drL	drR	kic	bas	gt1	gt2	prc	clp
INPUT GROUP	A(DMR SLV AD)							

P9 - Post production

MODE	ALL REC	SYNC DUB	PING-PONG	PUNCH IN	TRACK EDIT
CHANNEL NAME					
CH1	V1L	V1L	V1L	V1L	
CH2	V1R	V1R	V1R	V1R	
CH3	V2L	V2L	V2L	V2L	
CH4	V2R	V2R	V2R	V2R	
CH5	SE1	SE1	SE1	SE1	
CH6	SE2	SE2	SE2	SE2	
CH7	AN1	AN1	AN1	AN1	
CH8	AN2	AN2	AN2	AN2	
TRACK NAME					
CH1	v1L	v1L	v1L	v1L	v1L
CH2	v1R	v1R	v1R	v1R	v1R
CH3	v2L	v2L	v2L	v2L	v2L
CH4	v2R	v2R	v2R	v2R	v2R
CH5	seL	seL	seL	seL	seL
CH6	seR	seR	seR	seR	seR
CH7	an1	an1	an1	an1	an1
CH8	an1	an2	an2	an2	an2
TRACK ASSIGN					
CH1	-------o	-------o	-------o	-------o	-------o
CH2	------o-	------o-	------o-	------o-	------o-
CH3	-----o--	-----o--	-----o--	-----o--	-----o--
CH4	----o---	----o---	----o---	----o---	----o---
CH5	--oo----	--oo----	--oo----	--oo----	--oo----
CH6	--oo----	--oo----	--oo----	--oo----	--oo----
CH7	-o------	-o------	-o------	-o------	-o------
CH8	o-------	o-------	o-------	o-------	o-------
RTN1	--oo----	--oo----	--oo----	--oo----	--oo----
RTN2	--oo----	--oo----	--oo----	--oo----	--oo----
SUB	--oo----	--oo----	--oo----	--oo----	--oo----
RECORD TRACK		--------	--------	--------	--------
MIXING TRACK			--------	--------	--------
MONITOR SEL		--------	--------	--------	--------

MIXDOWN MODE								
DMR NAME	v1L	v1R	v2L	v2R	seL	seR	an1	an2
SLAVE NAME	v1L	v1R	v2L	v2R	seL	seR	an1	an2
A/D NAME	v1L	v1R	v2L	v2R	seL	seR	an1	an2
INPUT GROUP	A (DMR SLV AD)							

13 • Preset style settings - User Style (U___)

ENGINEER: DATE:

MODE	ALL REC	SYNC DUB	PING-PONG	PUNCH IN	TRACK EDIT
CHANNEL NAME					
CH1					
CH2					
CH3					
CH4					
CH5					
CH6					
CH7					
CH8					
TRACK NAME					
CH1					
CH2					
CH3					
CH4					
CH5					
CH6					
CH7					
CH8					
TRACK ASSIGN					
CH1					
CH2					
CH3					
CH4					
CH5					
CH6					
CH7					
CH8					
RTN1					
RTN2					
SUB					
REC TRACK					
MIX TRACK					
MONITOR SEL					

MIXDOWN MODE								
DMR NAME								
SLAVE NAME								
A/D NAME								
INPUT GROUP								

13.10 Warning messages

Automix

```
RROR         AMix AREA!!
VER STOP MEMORY AREA
```

CAUSE: Not enough free memory for automix data.

REMEDY: Delete some unwanted automix data in the "AMix DEL" menu of AMix MANUAL EDIT 1. If you want to keep the data, save it to a memory card first.

```
ime Code     00:01:04.22
ARNING!! AMix AUTO MODE
```

CAUSE: A recall operation in the MEMORY FUNCTION section has been attempted during automix playback.

REMEDY: A recall operation in the MEMORY FUNCTION cannot be performed during automix playback. First, cancel the automix function or press the [AUTO/MANUAL] key to select Manual Edit mode.

Memory function

```
ARNING! NO VALID EVENTS
```

CAUSE: You have tried to recall a program number for which no F4 event data exists.

REMEDY: Check the program's contents in the EVENT EDIT menu and, set the data accordingly.

TOC

```
    TAPE PROTECT ON!
```

CAUSE: The cassette's protection tabs are set to protected.

REMEDY: Reset the cassette's protection tabs to unprotected.

```
NFORMATTED TOC AREA!!
```

CAUSE: You have attempted to save TOC data on a tape that does not have a formatted TOC area.

REMEDY: If the first 40 seconds of the tape are unused, use the TOC Only format function in the TAPE FORMAT menu, then save the TOC data.

If the first 40 seconds of the tape are used, you cannot save the TOC data.

```
VERIFY ERROR!!
```

CAUSE: TOC data has been saved to tape, but an error has been detected.

REMEDY: Try to save the TOC data again. If the LCD message appears repeatedly, the tape may be damaged or the tape heads are very dirty.

```
FATAL DATA ERROR
```

CAUSE: The TOC data contains an error that cannot be corrected, so the data cannot be loaded.

REMEDY: Try to load the TOC data again. If the error message appears repeatedly, the TOC data may be damaged.

```
RROR CORRECT FAILED!!
```

CAUSE: An error occurred during TOC data loading that could not be corrected.

REMEDY: Try to load the TOC data again.

```
ILLEGAL TOC FORMAT!!
```

CAUSE: Not a DMR8 tape format.

REMEDY: Check the tape. Use only DMR8 formatted tapes.

Memory card

```
NO RAM CARD
```

CAUSE: No RAM card loaded.

REMEDY: Insert a DMR8 RAM card.

```
WRONG ID CARD
```

CAUSE: This memory card has been initialized on a different device.

REMEDY: Insert a DMR8 initialized RAM card.

```
WRITE PROTECTED
```

CAUSE: The RAM card is write protected.

REMEDY: Check the card's protection switch and the MEMORY PROTECTION function in the MEMORY FUNCTION menu.

Tape play

```
SYNC ERROR!
```

CAUSE: A synchronization error related to the tape servo mechanism has occurred because an unformatted section of tape is being played or the tape heads are very dirty.

REMEDY: If the tape format is OK, try cleaning the tape heads.

Locate

```
WARNING!! LOCATE INVALID
```

CAUSE: You have tried to recall an F4 event memory that does not contain a time value.

REMEDY: Store a time value in the F4 event memory, then recall it.

Vari Fs

```
hange Xtal to PLL-CLOCK
```

CAUSE: You have tried to use the vari-pitch function with the "Xtal" Clock mode.

REMEDY: On the "INT Clock Mode" menu of INITIAL SET, set the Clock mode to "PLL".

Fs

```
Fs=48kHz  Conflict!
```

CAUSE: The tape's sampling frequency does not match that of the DMR8.

REMEDY: The tape's sampling frequency is indicated on the sub-display. Set the DMR8's sampling frequency to the same value on the "Sampling Frequency" menu of INITIAL SET.

Copy

```
Slave Chase Unlocked
```

CAUSE: The Edit Copy function cannot be used because the slave cannot synchronize to the DMR8's timecode.

REMEDY: Check the timecode connections and make sure that the slave is receiving timecode.

```
CTRL OUT no comm !
```

CAUSE: The control cable connections have not been made or the slave device is not set to slave.

REMEDY: Check the control cable connections and set the master and slave devices as required (see the TIME CODE menu).

```
Not Master Mode !
```

CAUSE: You have tried to use the Copy function with the DMR8 set to slave.

REMEDY: Set the DMR8 to Master mode (see the TIME CODE menu).

Chase

```
EXT Clock Nonconnect
```

CAUSE: "External Clock" has been selected, but no external clock signal is received.

REMEDY: Check the word clock connections.

```
Timecode not read!
```

CAUSE: The Locate function cannot be used because the tape's timecode has not been read.

REMEDY: Start playback to allow the DMR8 to read the timecode, then use the Locate function.

```
Slave no nonconnection!
```

CAUSE: The slave device is not responding.

REMEDY: Check the slave device settings: make sure it is set as timecode slave.

```
Slave Error!
```

CAUSE: An error has occurred on the slave device.

REMEDY: Check the error message on the slave device, and take appropriate action.

```
Master not Chase Mode!
```

CAUSE: The slave's chase key has been pressed before the master has been set to master.

REMEDY: Press the master's "CHASE" key.

```
All Erase Mode!
```

CAUSE: The "CHASE" key has been pressed in All Erase mode.

REMEDY: Do not press the "CHASE" key in All Erase mode. If CHASE is desired, exit ALL ERASE mode by entering REC MIX mode.

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